



ANDREWS ENVIRONMENTAL ENGINEERING INC. 1320 South Fifth Street, Springfield, Illinois 62703/(217) 528-1545

June 6, 1984

Lawrence W. Eastep, P.E.,
Manager - Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

re: 19704503 -- Will County
Joliet/Lockport Trucking, Inc. (Carlstrom)

Dear Mr. Eastep:

On behalf of our client, Lockport Trucking, Inc., enclosed in duplicate are permit application materials for a supplemental permit to modify the developmental and operational plan at the subject site to allow the development of a refuse transfer station.

Should you have any questions or comments in this regard, please do not hesitate to contact us at your earliest possible convenience. Thank you.

Very truly yours,

Andrew A. Rathsack

Andrew A. Rathsack, P.E.,
Project Manager

AAR:rdk
enclosures
cc: Jack Carlstrom
w/enclosures

EPA Region 5 Records Ctr.



300639

RECEIVED

JUN 12 1984

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LANDFILL SITE REFUSE TRANSFER STATION
LOCKPORT TRUCKING, INC.,
WILL COUNTY/JOLIET, ILLINOIS

APPLICATION FOR PERMIT
TO DEVELOP A WASTE
STORAGE/TREATMENT SITE

Prepared by:

ANDREWS ENVIRONMENTAL ENGINEERING, INC.
SPRINGFIELD, ILLINOIS

DUPLICATE

RECEIVED

JUN 12 1984

E.P.A. — D.L.P.C.
STATE OF ILLINOIS

IL 532-0842
LPC 89 7/81

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter III 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

APPLICATION FOR PERMIT

In order to clarify submittals made to the Land Permit Section, this document shall be utilized as page one of applications for Operating Permit and Supplemental Permit for site modification. This form is not to be used with applications for Development Permit and for Supplemental Permit to accept special waste (green forms).

June 6, 1984

date

Illinois Environmental Protection Agency
Land Permit Section
Division of Land/Noise Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Gentlemen:

This is an application for:

- ☐ OPERATING PERMIT
☒ SUPPLEMENTAL PERMIT TO MODIFY DEVELOPMENT
☒ SUPPLEMENTAL PERMIT TO MODIFY OPERATION

for

SITE NAME: Lockport Trucking, Inc.
SITE ADDRESS: Lockport Trucking, Inc.
Rock Island Frontage Road
Joliet, Illinois 60435
COUNTY: 19704503 -- Will County, Illinois

LPC-48 3/80

RECEIVED

JUN 12 1984

(OVER)

E.P.A. — D.L.P.C.
STATE OF ILLINOIS

SIGNATURES:

SITE OPERATOR: Jack Carlstrom

OPERATOR ADDRESS: Lockport Trucking, Inc.

1530 North Broadway Street

Joliet, Illinois 60435

SITE OWNER: Jack Carlstrom

OWNER ADDRESS: Lockport Trucking, Inc.

1530 North Broadway Street

Joliet, Illinois 60435

ENGINEER: Andrew A. Rathsack, P.E., Project Manager

P.E. REG. NO.: IL #62-35966

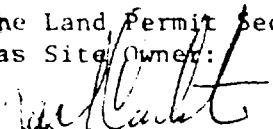
ADDRESS: ANDREWS ENVIRONMENTAL ENGINEERING, INC.

1320 South Fifth Street

Springfield, Illinois 62703

PHONE NO.: (217) 528-1545

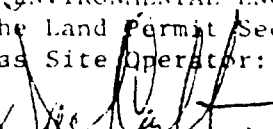
I hereby authorize ANDREWS ENVIRONMENTAL ENGINEERING, INC. to execute all permit application documents to the Land Permit Section, Division of Land/Noise Pollution Control on my behalf as Site Owner:

SIGNATURE: 

Date: 06-06-84

Jack Carlstrom

I hereby authorize ANDREWS ENVIRONMENTAL ENGINEERING, INC. to execute all permit application documents to the Land Permit Section, Division of Land/Noise Pollution Control on my behalf as Site Operator:

SIGNATURE: 

Date: 06-06-84

Jack Carlstrom

RECEIVED

JUN 12 1984

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

IV. Location Information

Attach a copy of the United States Geologic Survey (U.S.G.S.) quadrangle map (7.5 minute quadrangle, if published) and a topographic map of the area which contains the site. Also provide a legal description of the site.

Quadrangle map provided Joliet Photorevised - 1973
Name Date
1.15 Acres in NE Quarter, SW Quarter, SW Quarter, of
Section 16, Township 35N, Range 10E, 3rd P.M.
Local Description: Lot ---, Block ---
Present Zoning Classification and Restrictions (if any) N/A

V. Facility Background

- () This is an existing operation begun _____ (mo.) _____ (yr.).
() This is a proposed operation.
(x) This is a proposed extension to an existing operation:
Illinois EPA Permit No. 1973-1.
() Other Existing Environmental Facility Permits:

Consult instructions for the contents of Sections V, VI, VII, and VIII.

VI. Facility Information

The following documents must accompany the application (please indicate which documents are being submitted with this application by putting an "X" in the appropriate space).

- x 1. A plan sheet of the site.
 2. A process flow diagram and process instrumentation diagram of storage/treatment operation.
 x 3. A narrative description of the site's operation.
 x 4. A description of analysis methods used to screen and test waste types.
 x 5. A description of methods used to treat, transfer or dispose of waste generated from the process/operation of the site.
 x 6. A detailed contingency plan or procedure.
 x 7. A description of inspection procedures.
 8. A closure plan.
 9. Land use information.

RECEIVED

JUN 12 1984

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

VII. Storage and/or Transfer

A. This application is for storage and/or transfer x (check the appropriate box(es))

Waste to be contained in:

Tank	<u> </u>	Surface impoundment	<u> </u>
Drum	<u> </u>	Waste pile	<u>x</u>
Barrel	<u> </u>	Other <u>trailer</u>	<u>x</u>
		(type)	

B. Storage/Transfer

For each box(es) checked above provide, when applicable, the following information:

1. Physical Location
2. Material of construction
3. Number of containers
4. Duration of storage
5. Age of container
6. Type of waste(s) contained
7. Design

VIII. Treatment

Include the following information:

- A. Name of process
- B. Methodology utilized
- C. Type(s) of waste(s) to be treated
- D. Objective of treatment
- E. Average or maximum capacity of the process

IX. Incineration

- A. Type of incinerator/equipment and model number
- B. Description, typical composition and source of waste(s) to be incinerated
- C. Maximum amount of waste(s) to be incinerated (gallons/hour)
- D. Estimated daily amount of waste to be incinerated
- E. Operating Temperature
- F. Residence Time
- G. Description of gas cleaning devices

X. Hydrogeology

Refer to the instructions.

RECEIVED

JUN 12 1984

E.P.A. — D.L.P.C.
STATE OF ILLINOIS

V.

FACILITY BACKGROUND

Lockport Trucking, Inc. is the Owner and Operator of a 9.2 acre Illinois EPA permitted sanitary landfill (Site Number: 19704503 - Will County) located in Joliet, Illinois which is currently in the process of closing and receiving final cover.

With the impending termination of landfilling operations at the site and continually increasing hauling distances from collection routes to disposal sites; request is herein being made for a supplemental permit to modify the site's developmental and operational plan to allow the development of a Refuse Transfer Facility as shown on the enclosed drawings and described herein.

RECEIVED

JUN 12 1984

EPA - D.L.P.C.
STATE OF ILLINOIS

- 1). See Drawing Number 84-112-1
- 2). Not Applicable
- 3). The refuse transfer station is intended to serve the general public and refuse haulers in an around the Joliet area.

The transfer station will be on two levels and partially enclosed within a building. The lower level will accomodate a semi-trailer designed for over-the-road transport. The upper level will facilitate unloading of the collection vehicles and the placement of refuse into the semi-trailer. Both upper and lower levels will be asphaltic paved.

Typical operation will consist of backing the refuse collection vehicles onto the paved tipping floor and unloading their contents as near as possible to the concrete bulkhead wall. A rubber-tired endloader will remove the refuse from the tipping floor and place it into the semi-trailer. This will continue until the semi-trailer is filled to capacity. Since highway weight restrictions will usually determine load capacity, portable scales will typically be used to weigh the semi-trailer as it is being loaded. The semi-trailer will then be transported to an IEPA permitted sanitary landfill where the refuse will be unloaded and disposed. Immediately upon removal of the semi-trailer a replacement will be moved into place. As necessary, the tipping floor will be swept and dry-cleaned with an absorbent.

Under normal circumstances, no refuse will remain on the tipping floor at the end of the day's operations. However, refuse which is contained within a collection vehicle or in a covered and/or closed semi-trailer may remain on-site overnight in order to facilitate transport of full loads to the landfill.

RECEIVED

JUN 12 1984

EPA -- D.L.P.C.
STATE OF ILLINOIS

The transfer station will be operated on weekdays between 7:00 a.m. and 10:00 p.m. and on Saturdays between 7:00 a.m. and 12:00 Noon. The facility will be closed on Sundays and certain Holidays.

During the hours of the day and week when the transfer station is not in operation, it may be used to house collection vehicles.

The refuse delivered to the transfer station will consist of household, commercial and non-special waste industrial materials from the City of Joliet and the surrounding area. To assure the composition of the waste does not include special wastes without supplemental permit(s) the endloader operator will be instructed in methods for identifying special waste loads. He will be instructed not to accept any such loads delivered to the facility. Daily refuse receipts are anticipated to be approximately 500 cubic yards as an average.

4). See item 3. above.

5). See item 3. above.

6). Contingency operations will occur when normal procedures are interrupted by fire, explosion, adverse weather conditions and other occurrences beyond the control of the facility operator. The delivery of a "hot" load to the facility would be the most probable cause of emergency conditions. As an immediate precaution there will be a minimum of two - 20 pound ABC-type fire extinguishers available at the tipping floor at all times when the facility is in operation. Additionally, the facility office will have immediately available the telephone number for summoning emergency assistance in the event of need for firefighters, ambulance or police. A first-aid kit will be available in the office.

Normal operation may be temporarily interrupted by extremely adverse weather conditions. If such conditions develop and the ability of the site to receive, transfer and deliver refuse is impaired, the collection vehicles will be diverted to other suitable sites or facilities until normal operations are restored.

RECEIVED

JUN 12 1974

L.P.C. - D.L.P.C.
STATE OF ILLINOIS

- 7). Inspection of the facility for cleanliness and healthful conditions is a routine function of management. Each day the endloader operator will be responsible for an end-of-day inspection of the tipping floor and the transfer trailer bay and scales to assure that all refuse has been cleaned from these areas. Additionally, at least annually, a professional exterminator will be engaged to perform an inspection of the facility and provide professional extermination of disease vectors, if required.

VII.

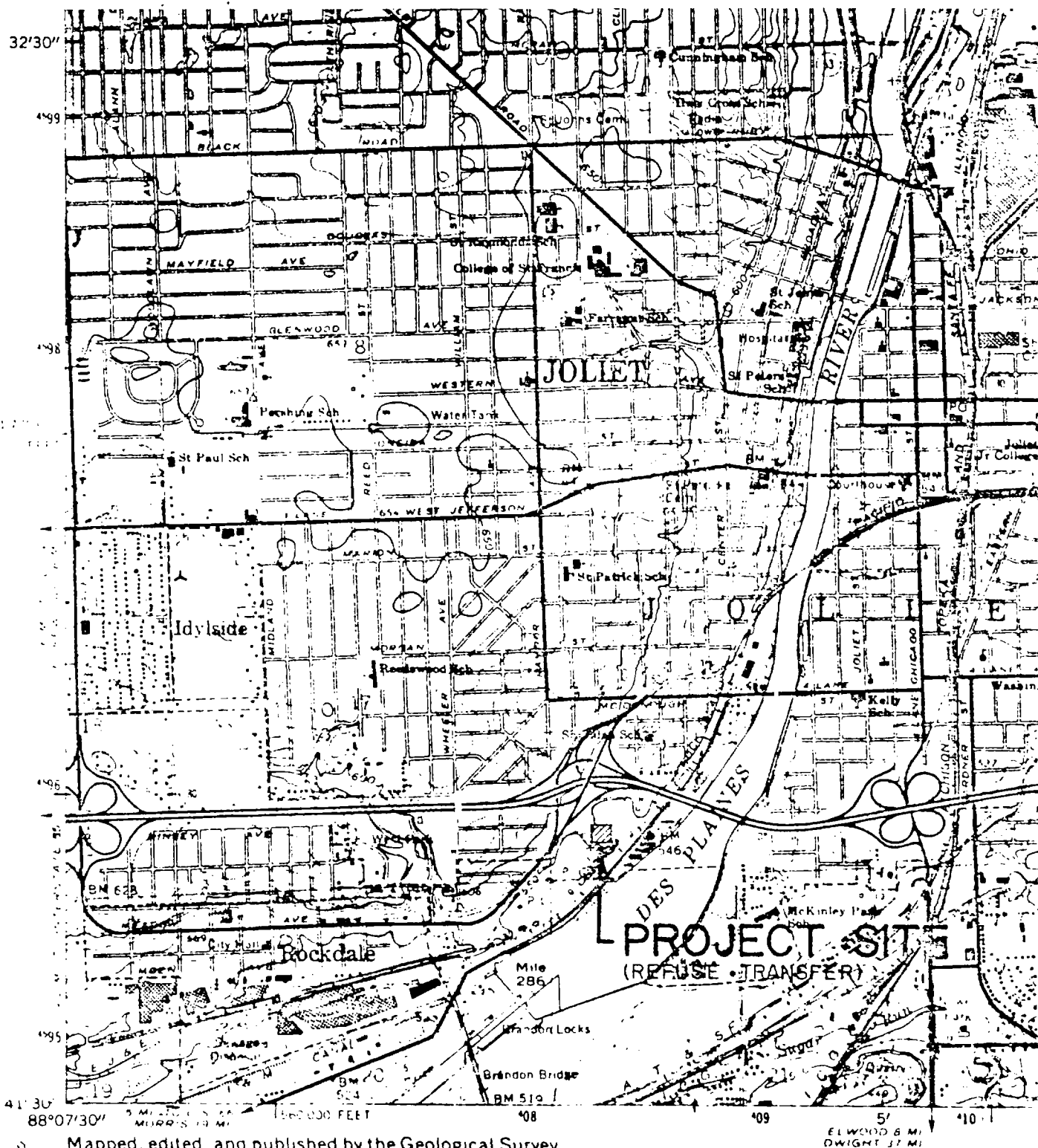
STORAGE AND/OR TRANSFER

A. See Application form

B. Transfer Station

- 1). The transfer trailers used for movement of approximately 100 cubic yards (25 Ton) loads to the disposal site are specially-designed "Walking Floor" semi-trailers. They are to be stationed in the transfer trailer bay with axles positioned on the scales. The endloader working on the tipping floor above will load trailers and use downward pressure on the bucket to compact refuse.
- 2). Semi-trailers are to be constructed of steel and aluminum to maximize the payload. The "Walking Floor" design allows unloading without tilting.
- 3). A minimum of two semi-trailers will be available at all times and additional units will be provided as needed to assure continuous operation.
- 4). Storage will be utilized only as necessary to assure full load delivery to the disposal site. In no event will refuse remain on-site in excess of 24-hours. All refuse remaining on-site in excess of 12-hours will be contained within a collection vehicle or in a covered and/or closed semi-trailer.
- 5). Semi-trailers are to have a useful life expectancy of ten years or more with reasonable maintenance.
- 6). All wastes will be municipal wastes or non-special industrial wastes.
- 7). Semi-trailers are to have fold-over panels at the top to assure no refuse blows out of the vehicle in transit to the disposal site.

JUN 12 1984



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1952 and planetable surveys 1953-54. Revised from aerial photographs taken 1962. Field checked 1962

Polyconic projection. 1927 North American datum
10,000-foot grid based on Illinois coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

Revisions shown in purple compiled from aerial photographs taken 1973. This information not field checked

Purple tint indicates extension of urban areas

UTM GRID AND 1973 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

JUN 12 1984

EPA - D.L.P.C.
STATE OF ILLINOIS

(CHANNING)
3366 / AW



Northern

ANDREWS ENVIRONMENTAL ENGINEERING INC. 1820 South Hawthorne Road, Suite 100, Springfield, Illinois 62761-1515

May 18, 1983

Larry Eastep
Illinois Environmental Protection Agency
Division Of Land Pollution Control
Permit Section
2200 Churchill Road
Springfield, Illinois 62706

re: Will County, Illinois
Joliet/Lockport Trucking, Inc.

Dear Mr. Eastep:

On March 4, 1983 the Agency issued a letter denying the supplemental permit to allow implementation of a ground-water monitoring program at the subject site. The attached information is submitted in response to the informational items requested in the denial letter.

Please consider this a re-submittal of the application for supplemental permit.

Sincerely,

James Douglas Andrews, P.E.,
President

JDA:rdk
enclosures
cc: Jack Carlstrom
Kenneth Bechely

Notification Sent
Per I. E. P. A. Act §39 (c)

MAY 19 1983

DL/NPC

RECEIVED

MAY 18 1983

EPA - DIVISION
STATE OF ILLINOIS

WILL COUNTY, ILLINOIS
JOLIET/LOCKPORT TRUCKING, INC.
PERMIT NUMBER 1973-1

GROUNDWATER MONITORING PLAN

Introduction:

The purpose of this plan is to implement a program of groundwater monitoring at the Lockport Trucking, Inc. landfill. The attached Drawing Number 77-111-MW1 indicates the location of two (2) existing water wells which are intended to be sampled and analyzed. In addition, a third monitoring well is to be installed at the site as shown on the same drawing.

The Number 1 Residence well is located approximately 150 feet from the landfill on property lying across the road immediately east. This well is reported to be approximately 160 feet deep and the length of the screened portion has not been determined. The Number 2 Agazzi Ceramic Co. well is reported to be approximately 120 feet deep and the length of the screened portion has not been determined. This well is located about 1500 feet southwest of the landfill and is intended to serve as a background water quality source.

New Monitoring Well

In addition to the two (2) existing water wells there is to be a new monitoring well installed at the site near the waste disposal boundary. Drawing Number 77-111-MW2 provides the details of in-

GROUNDWATER MONITORING PLAN
LOCKPORT TRUCKING, INC.

- 2 -

stallation for this well. The new well is designed to intercept flow in close proximity to the disposal area to determine whether any adverse groundwater effects have occurred.

Existing Well Construction

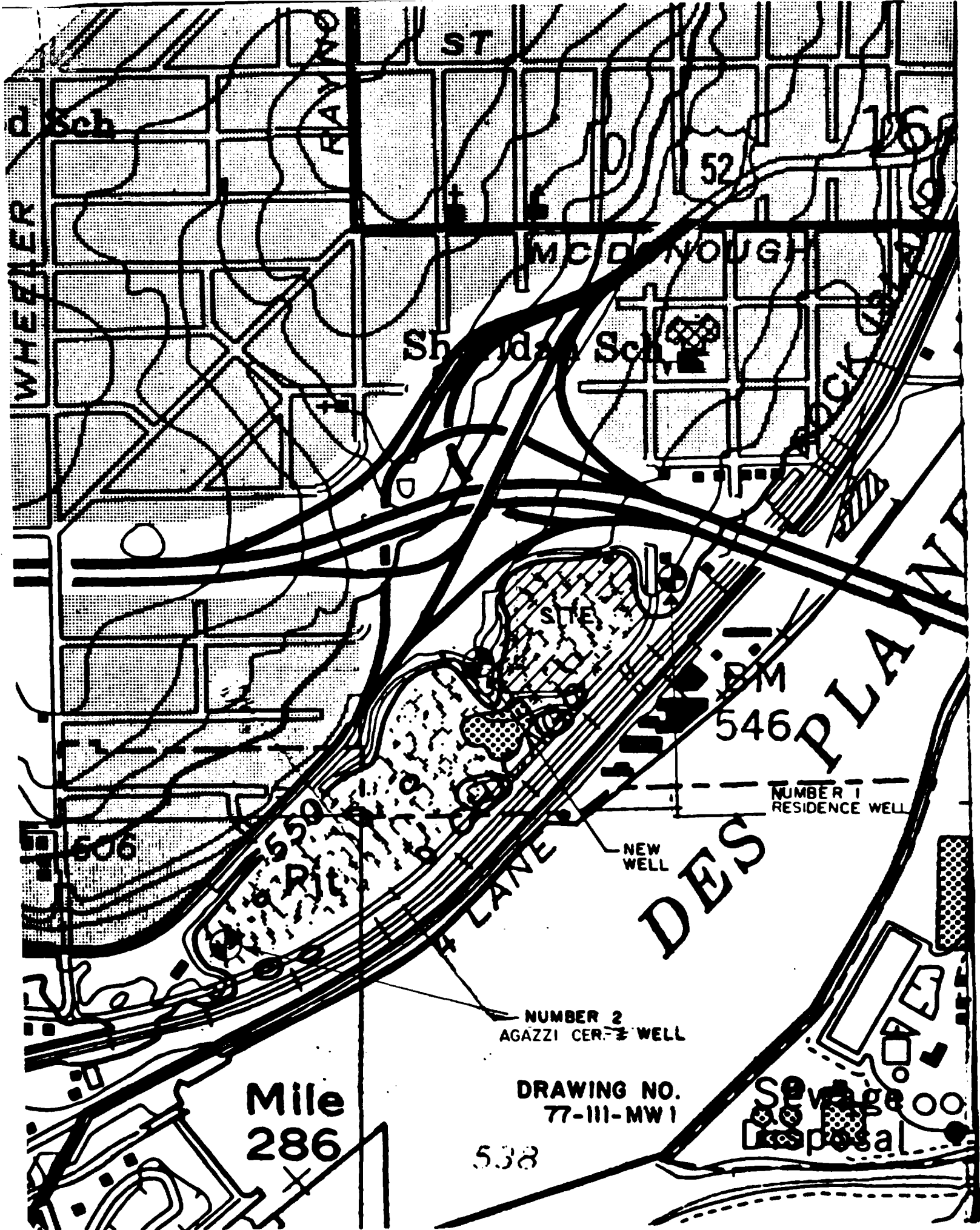
The construction details of the two existing wells cannot be readily determined from direct evidence. It is not feasible to take these wells out of service to dismantle portions in an effort to confirm construction details. However, based upon records of a number of other wells in the vicinity, it appears that these wells would be cased with 4" or 5" black or galvanized steel pipe.

The borehole may be open below the casing and the submersible pump may be set at a depth of 40' to 80'.

Monitoring Parameters

The parameters to be analyzed as a part of the monitoring program will be established by the IEPA. However, it is suggested that the following parameters be used for background analyses:

Ammonia, as N	Mercury (Hg)
Arsenic (As)	Nitrate-Nitrite as N
Barium (Ba)	pH
Boron (B)	Phenols
Cadmium (Cd)	ROE
COD	Selenium (Se)
Chloride (Cl)	Silver (Ag)
Chromium (Cr) (total)	Sodium (Na)
Copper (Cu)	Specific Conductance (SC)
Cyanide (CN)	Sulfate (SO ₄)
Fluoride (F)	Zinc (Zn)
Iron (Fe)	Total Organic Carbon (TOC)
Lead (Pb)	
Manganese (Mn)	



MONITOR WELL LOG

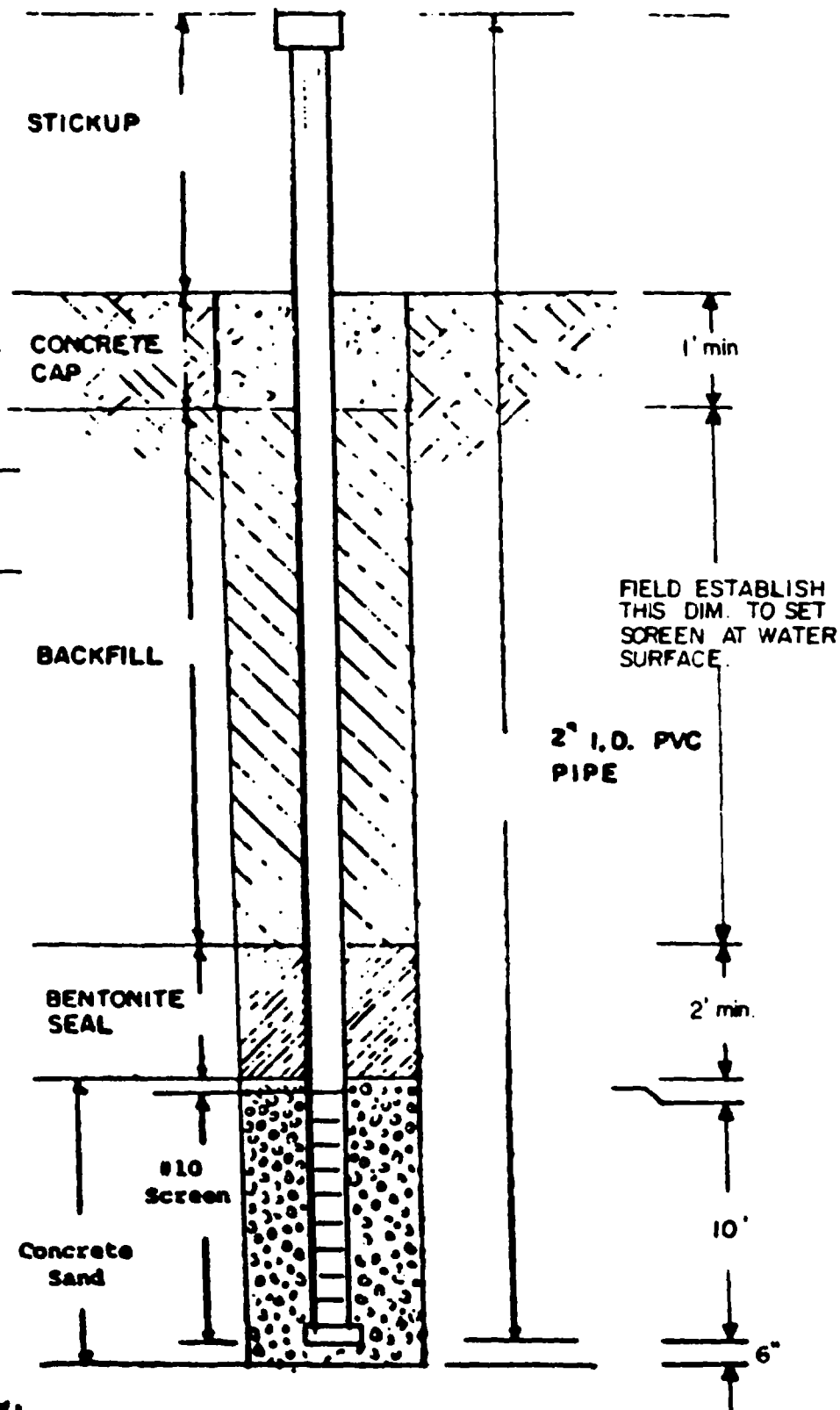
ELEVATION

PROJECT:
LOCKPORT TRUCKING CO
JOLIET, ILLINOIS

DATE:

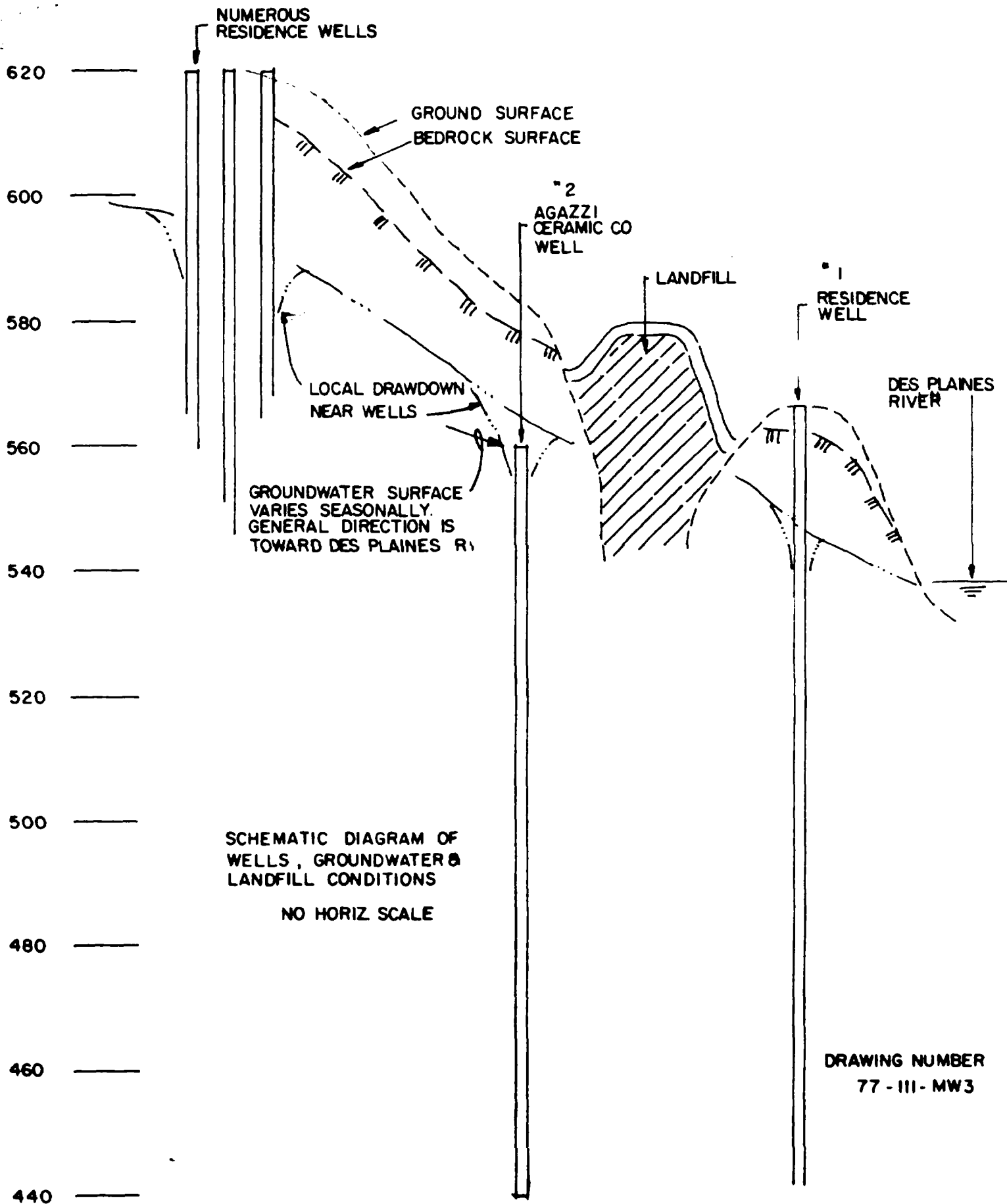
WELL NO.

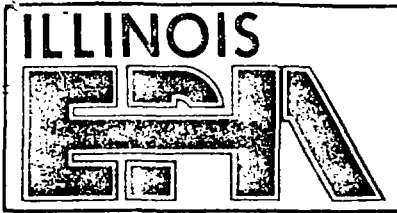
WATER ELEVATION
AT COMPLETION:



DRILLED & INSTALLED BY:

DRAWING NO.
77 - III - MW2





Environmental Protection Agency

1701 First Avenue, Maywood, IL. 60153

312/345-9780

Refer to: 197045003 - Will County - Joliet/Lockport Trucking
ILD 005545470

January 18, 1985

Andrews Environmental Engineering, Inc.
1320 South Fifth Street
Springfield, Illinois 62703

Attn: Mr. James Andrews

Dear Mr. Andrews:

The Agency has received your January 3, 1985 letter advising us that a "Landfill Termination Notice" has been filed with the Will County Recorder of Deeds for the above referenced site. A representative from this office will contact Lockport Trucking to establish an appointment for a final cover check.

Sincerely,

Kenneth P. Bechely, Northern Region Manager
Field Operations Section
Division of Land Pollution Control

KPB:JJW:gec

cc: Division File
Northern Region
Jack Carlstrom - Lockport Trucking, Inc.



Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706-

217/752-5544

Refer to: EPA v. Jack Carlstrom d/b/a Lockport Trucking Company
PCB 70-153, EPA 4548(a)
 ID #10704503

December 14, 1981

Mr. Lee Mattinger
 Environmental Control Division
 Office of the Attorney General
 160 North LaSalle, Suite 800
 Chicago, Illinois 60601

Dear Mr. Mattinger:

By this letter, the Agency is requesting that you pursue enforcement of the above-referenced Pollution Control Board Order.

Respondent

Jack Carlstrom, doing business as Lockport Trucking Company (Carlstrom), operates a permitted landfill near Joliet, Illinois (Will County). Mr. Carlstrom's attorney is Mr. Theodore J. Jarz of the law firm, McKee, Fitzgerald, Zollner, Buck, Sammler and Hutchinson, 2255 Glenwood Avenue, Joliet, Illinois 60436.

The Agency first brought suit against Jack Carlstrom on May 25, 1979. The Agency filed an amended complaint on August 18, 1979. On June 22, 1979, after a hearing, the PCB found Carlstrom to be in violation of numerous sections of the Act and PCB regulations. The Board assessed a penalty of \$1500 and ordered Carlstrom to cease and desist from violations of the following:

- Act 21(b) - permit condition violations
- 21(e) - violation of regulations
- 21(f) - violation of regulations

- Chapter 7 - 803(a) (New Section 807.303(a)) - failure to deposit refuse properly
- 805(a) (New Section 807.305(a)) - daily cover
- 310(b) (New Section 807.310(b)) - permit condition violations - hazardous and liquid waste

In Item #4 of the PCB Order of June 22, 1979, the PCB ordered that:

- 4) Respondent shall install and operate leachate monitoring wells around the site with the approval of the Agency.

RECEIVED
 DEC 14 1981
 IL/ EPA - D.L.P.C.
 STATE OF ILLINOIS



Page 2

On August 30, 1979, Carlstrom filed a motion for stay of the PCB's Order of June 2, 1979 pending appeal. That motion was denied by the Board on October 4, 1979. The \$1500 fine was paid by Carlstrom on March 27, 1980.

On September 28, 1982, FOS met with Carlstrom and Douglas Andrews, Carlstrom's engineer, and advised them to apply for a permit from the Agency to install the monitoring wells. As a result of this meeting, Carlstrom applied to the Agency for a permit on December 7, 1982. Their application was denied by the Agency for insufficient information on March 4, 1983.

On May 18, 1983, Carlstrom re-submitted the application for a permit allowing Carlstrom to install the monitoring wells. The Agency denied this re-submitted application on July 15, 1983. The application submitted by Carlstrom sought to use existing wells in the area as monitoring wells. Once again, the application was denied for insufficient information.

No further applications have been received by the Agency from Mr. Carlstrom to obtain the permit required for the installation of the monitoring wells.

The Carlstrom site has been inspected by Agency FOS personnel since the PCB order of June 22, 1979. The last inspection was done by Charles Gruntman, DLPC, on May 14, 1984 and the monitoring wells had not been installed as of that date. The inspection dates and inspectors are as follows:

8/28/79 - CFB	4/9/81 - JAS	3/23/82 - JAS
11/29/79 - CFB & KPB	4/28/81 - JAS	4/9/82 - JAS
12/13/79 - CFB & KP	5/22/81 - JAS	4/30/82 - JAC, GJG
1/10/80 - CFB	5/5/81 - JAS	5/12/82 - JAS
2/4/80 - CFB	6/24/81 - JAS, CL	6/10/82 - JAS
3/18/80 - CFB, DB, JE	7/1/81 - JAS, CL, GS	8/12/82 - JAS
5/1/80 - CFB, RE, JAS	7/10/81 - JAS	8/20/82 - JAS
5/20/80 - JAS	7/14/81 - JAS	9/3/82 - JAS
5/20/80 - JAS	8/7/81 - JAS	10/12/82 - JAS
7/16/80 - JAS, RP	9/24/81 - JAS, VG	1/19/83 - JAS, RJP
8/26/80 - JAS	9/8/81 - JAS	6/8/83 - RJP
9/22/80 - JAS	10/21/81 - JAS	10/20/82 - RJP
10/23/80 - JAS, KPB	10/28/81 - JAS	3/23/82 - GJG, CL
1/5/81 - JAS	11/24/81 - JAS	
1/23/81 - JAS	12/17/81 - JAS	5/14/82 - GJG
2/26/81 - JAS	2/9/82 - JAS	

Carlstrom has not been in compliance with the PCB Order of June 22, 1979 since that order has been entered.

REQUEST FOR COMMENTS ON A PENDING PERMIT APPLICATION

Log No. 749

To: Ken Bickley LPE ← Nursing
(Regional Manager or Compliance Monitoring) (Region)

From: _____, Permit Section
(Reviewer) (Unit)

Facility No. 19704503 County Wichita

City Salina Facility Name Carlton (L. & Sons Trucking)

The Permit Section received on 6-12-84 an application/additional
(Date)

information to modify/develop/operate
for the above site. A copy of this information is attached/available for your review.
Your comments regarding the groundwater monitoring inadequacies, design, operation or
any pending violations are requested. Please submit your comments by 7-2-84.
If not received within the time specified, we would assume that you do not have
any problems or concerns.

COMMENTS: Longmont Trucking (L. & Sons Trucking)
submitted their permit application on
JUNE 22, 1979 TO INSTALL 20 MONITORING
WELLS. PERMIT OLD TRUCKING (L. & Sons)
FOR TO RAILROAD STATION (9 MONITORING)

Pre-Issuance/Denial Meeting requested on _____
(less than 60 days from receipt, OP < 40 days)

(Date) (Time -- a.m. or p.m.)

In Attendance Permit Section _____
and/or Compliance _____
Conference Call F.O.S. _____

Results of Meeting: _____

Attachment

312/396-5001
33 South Stolp Avenue
Aurora, Illinois 60504

Refer to: Will County - 19704503 - Joliet/Carlstrom

August 30, 1978

Mr. Jack Carlstrom
1500 North Broadway
Joliet, Illinois 60431

Dear Mr. Carlstrom:

Your solid waste disposal facility located off Rock Island Avenue in Joliet, Illinois was inspected on August 16, 1978, by Henry A. Cobo, representing this Agency.

You were contacted at the time of the inspection.

The inspection disclosed the following conditions which constitute violations of the Illinois Environmental Protection Act and Chapter 7 of the Illinois Pollution Control Board Solid Waste Rules and Regulations and are not in compliance with your Operating Permit, No. 1973-1 and Supplemental Permit No. 78-1092:

... Surface water was ponding throughout the northeast portion of the site. This situation allows water to percolate through filled areas which accelerates the production of leachate. Such areas should be drained, filled with soil material and graded as necessary to eliminate this condition.

... Your approved Supplemental Permit No. 78-1092 states that you will construct a common drainage channel located along the north and east site walls to preclude entrance of surface water drainage onto the fill area. This has not been completed and is a violation of your permit. This must be accomplished immediately and maintained on an ongoing basis.

... Solid waste was being deposited at the top of the slope in violation of Solid Waste Rule 303(a) which states that all waste shall be deposited into the toe of the fill or into the bottom of the trench. This practice ensures better spreading and compaction density in the fill; reduces the total volume of cover material needed; and will reduce future settling problems.

Page Two

... The highway shoulder repair materials that was accepted and stockpiled for cover material is not in compliance with your permit. According to your Supplemental Permit No. 78-1092, this material is unacceptable, therefore we suggest you respond to this violation according to the requirements of this Agency. It is imperative that you follow your approved plans or obtain a supplemental permit to dispose of this material at your site.

... Solid Waste received on the previous operating day did not receive cover material. By the end of each operating day, a compacted layer of at least six (6) inches of suitable natural earthen material shall be placed on all exposed solid waste.

... Unloading of solid waste was not being satisfactorily supervised resulting in solid waste being deposited in more than one area of the fill. This practice contributes to unsatisfactory daily coverage of solid waste and additional operating expense. Unloading of solid waste should be supervised at all times.

... Your site was not being operated in accordance with your permit. Specifically, you are not spreading and compacting the refuse after every sixth load is deposited at the site, as per Supplemental Permit No. 1975-4. Continued operation which is not in accordance with the permit will result in a request of the Illinois Pollution Control Board to revoke your permit, in addition to other possible orders and penalties.

The Agency has referred the results of its investigation to the Attorney General's Office for action before the Illinois Pollution Control Board pursuant to the Environmental Protection Act and the Solid Waste Rules and Regulations.

This information is provided to allow you the opportunity to verify or dispute the Agency's findings. I am available to discuss these violations, and a program to correct such violations, at your convenience. I await your reply.

Sincerely,



Kenneth P. Bechely, Acting Regional Supervisor
Land Field Operations Section
Division of Land/Noise Pollution Control

KPB:HAC:jw/4640A,17-18

Enclosure: Inspection Report

cc: Division File
Northern Region
Will County Health Department
Sue Seltular

Lockport Waterworks and Sewerage System

Phone Area Code 815 - 838-0456 - ~~XXXXXX~~ Street - Lockport, Illinois 60441
222 E. 9th

July 13, 1981

Mr. Thomas McSwiggin, Manager
Permit Section
Division of Water Pollution Control
2200 Churchill Road
Springfield, Il. 62706

re: City of Lockport - Municipal Wastewater Treatment Plant
"Application for Supplemental Permit"

Dear Mr. Mc Swiggin,

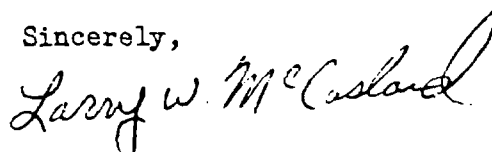
Enclosed in duplicated form, is an Application for Supplemental Permit seeking approval to temporarily utilize the sludge drying beds at the subject facility to dewater up to 1,000,000 gallons of wasted activated sludge originating from the wastewater treatment plant operated by Northern Petrochemical Co. in Morris, Illinois.

Submittal of this Application follows July 7 and 9, 1981 telephone conversations involving Mark Schollenberger of your office and Roger Breitenfield of James Douglas Andrews, P.E., Environmental Engineering, Inc.

We would certainly appreciate your immediate attention in this matter as the contracted hauler, Lockport Trucking Co. of Joliet, Illinois is required to empty the sludge lagoon by August 15th, 1981. Accordingly, it will become necessary to commence hauling sludge immediately upon issuance of a permit by your office.

Should you have any questions or comments in the regard, please do not hesitate to contact Roger Breitenfield (528-1545) at your earliest possible convenience. Thank you.

Sincerely,



Larry Mc Casland
City of Lockport

Enclosures

cc: Jack Carlstrom - Lockport Trucking Co.

RECEIVED

JUL 15 1981

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

APPLICATION FOR SUPPLEMENTAL PERMIT
FOR THE
CITY OF LOCKPORT
MUNICIPAL WASTEWATER TREATMENT FACILITY

Prepared by:

JAMES DOUGLAS ANDREWS, P.E.,
ENVIRONMENTAL ENGINEERING, INC.
SPRINGFIELD, ILLINOIS

JULY 13, 1981

RECEIVED
JUL 15 1981
S. H. - D.E.P.C.
STATE OF ILLINOIS

- APPLICATION FOR SUPPLEMENTAL PERMIT -
CITY OF LOCKPORT
MUNICIPAL WASTEWATER TREATMENT FACILITY

RECEIVED

JUL 15 1981

E.P.A. — D.L.P.C.
STATE OF ILLINOIS

INTRODUCTION/BACKGROUND

The Northern Petrochemical Company (NPC) of Morris, Illinois operates an industrial wastewater treatment facility for treatment of process wastewater associated with the "cracking" of natural gas during the production of ethylene. Waste activated sludge generated in the biological treatment system is stored in an on-site lagoon of approximately 1,000,000 gallon capacity.

This lagoon is nearing capacity and NPC has contracted with Lockport Trucking Co. of Joliet, Illinois for the removal and disposal of this waste activated sludge inventory. The City Of Lockport has agreed to allow the use of the sludge drying beds at their municipal treatment plant for dewatering of NPC's lagooned sludge upon receipt of the necessary permits from both the Water and Land Divisions of the Illinois Environmental Protection Agency.

Accordingly, this Application for Supplemental Permit seeks authorization from the IEPA Water Division to temporarily modify treatment plant operations to include dewatering of up to 1,000,000 gallons of NPC's waste activated sludge on the City Of Lockport's sludge drying beds. Filtrate collected in the underdrain system would be returned to the upstream end of the City's wastewater treatment plant and combined with the incoming raw sanitary wastewater. The combined wastewater would receive secondary treatment

prior to discharge to the receiving stream. The dewatered sludge would be landfilled in accordance with a Supplemental Permit which will be requested separately from the IEPA Land Division.

It is the intent of subsequent portions of this narrative to 1) assess the adequacy of the City Of Lockport's sludge handling system while temporarily utilizing a part or all of the sludge bed capacity to dewatering NPC's sludge; 2) provide chemical characterization of this sludge and 3) assess the impact of the filtrate from NPC's sludge on the operation of the City Of Lockport's wastewater treatment system.

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

ASSESSMENT OF THE ADEQUACY OF SLUDGE HANDLING SYSTEM

The City Of Lockport's wastewater treatment system was expanded in 1971 to provide a 2.0 MGD design average dry weather flow capacity and a 4.25 MGD design peak wet weather flow capacity. The current dry weather hydraulic loading to the plant is approximately 2.0 MGD.

The principal components of the treatment system consist of primary clarification, contact stabilization activated sludge, secondary clarification, and chlorination. Raw sludge from the primary clarifiers is anaerobically digested. Waste activated sludge from the secondary system is aerobically digested. Periodically, the stabilized sludge from the anaerobic and aerobic digesters is applied to the sludge drying beds for dewatering. The sludge bed capacity consists of 6 beds, each 80'L x 25'W and 8 beds, each 75'L x 25'W. The total bed surface area is 27,000 square feet. The beds can be filled to a 12 inch depth with sludge.

Both the anaerobic and the aerobic digesters have recently been emptied. Accordingly, each of these tanks currently has significant excess capacity. For example, the anaerobic digester has a 293,000 gallon capacity at a side water depth of 20 feet. The current depth in this tank is 8 feet leaving an available capacity of approximately 175,000 gallons. Based on an average raw sludge quantity of 2500 gpd pumped to the anaerobic digester, the additional available capacity is equivalent to 70 days of operation. This evaluation neglects any additional capacity that would be derived from decanting of supernatant from the digester. Given the normal practice of removing supernatant, the additional available storage capacity is estimated to be equivalent to at least three months of operation.

The aerobic digester has a total capacity of approximately 253,000 gallons, and is also equipped with decanting capabilities. This tank is currently full of partially thickened sludge with a total solids concentration of 8%. The plant operator's normal practice involves decanting of supernatant from this tank until a minimum total solids level of approximately 10% is reached, at which time the aerobically digested sludge is applied to the sludge drying beds. Based on the 253,000 gallon capacity and the difference between the above two total solids levels, the aerobic digester has available capacity of approximately 42,000 pounds of additional solids. Comparing this to the 400 lbs/day average waste activated sludge quantity added to the aerobic digester, this tank has an additional available capacity equivalent to at least 105 days of operation (neglecting consideration of solids destroyed in the digestion process).

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

Based on the above evaluation the sludge drying beds would not be required by the City Of Lockport for a minimum of three months. By comparison, the most probable length of time that the beds would be unavailable as a result of dewatering NPC's sludge would be 1½ months. On this basis, it is apparent that the City Of Lockport would not be handicapped in their sludge handling system by acceptance of this additional sludge.

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

CHARACTERIZATION OF NPC's LAGOONED SLUDGE

Attached are laboratory data sheets from an independent laboratory, Gulf Coast Laboratories, Inc., which summarize primarily inorganic analyses for a sludge sample retrieved from the lagoon on May 1, 1981. Unless indicated otherwise, the analytical results presented on the two pages labeled "Waste Analysis" are for the sludge on an as received basis. The laboratory data sheet labeled "Federal Criteria Testing" summarizes analytical results for test procedures identified by the Federal RCRA Regulations. Except for the flash point and pH parameters, all analytical results on this data sheet are based on the EP Toxicity Test Procedure, i.e., a simulated leach test. The leach test analyses are conducted on a combination of the liquid originally in the sludge sample and the extract from the leach test. It is apparent from the leach test data that:

- 1). The heavy metals are tied up in a solid form and will not be present in the filtrate leaving the sludge beds. The heavy metals will be retained with the dewatered sludge.
- 2). The heavy metals in the sludge are not readily leachable.

Regarding organic characterization of the sludge, the total volatile solids represent 50 - 75% of the total sludge solids in the lagoon. In addition to biological cell mass, free oil and emulsified oil (primarily aromatic type) carry over from NPC's oil water separator, which agglomerate onto the activated sludge solids, makeup the volatile solids. The oil present in the sludge upon placement in the City Of Lockport's sludge beds will be retained with the dewatered sludge. The filtrate removed from the sludge beds can be expected to contain only small quantities. The filtrate produced by filtering a sludge sample through #4 (coarse) filter paper contained an oil level of 42 mg/l.

The organic content of the filtrate consists of residual organics remaining after activated sludge treatment, resolubilized biological cell constituents resulting from cell lysis during long-term storage in the lagoon, and soluble organics resulting from the slow degradation of the free and emulsified oils in the sludge. A chemical oxygen demand test conducted on the filtrate from a sludge sample indicated a COD of 770 mg/l. Based on an assumed COD to BOD ratio of 3.0, the filtrate would have a corresponding BOD of approximately 260 mg/l, i.e., equivalent to raw sanitary wastewater.

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

ASSESSMENT OF THE IMPACT OF THE FILTRATE ON OPERATION OF THE CITY OF LOCKPORT'S
WASTEWATER TREATMENT FACILITY

The filtrate removed from the sludge drying beds during dewatering of NPC's sludge and subsequently returned to the upstream end of the City Of Lockport's treatment plant is not expected to have any significant impact on the treatment plant's operations. The following comments are offered in support of this position:

- 1). The attached leach test data indicates the filtrate is essentially void of heavy metals. Instead, the heavy metals in the lagooned sludge will be retained in the dewatered sludge which subsequently will be landfilled.
- 2). The heart of the NPC wastewater treatment facility is an activated sludge system, which during daily operation, is subjected to significant levels of organic constituents as well as variation in organic levels. However, in spite of these adverse loading conditions, plant operating personnel have indicated that system upsets due to toxic responses have not been a problem. Instead, the principle operating problem is related to occasional excessive carryover of free and emulsified oils from the oil/water separator into the aeration basin. The subsequent agglomeration of these oils onto the activated sludge solids has caused microorganism respiratory problems, foaming in the aeration basin, and floating solids in the clarifiers. However, it is strongly emphasized that any oils associated with the NPC lagooned sludge will be retained with the dewatered sludge, and will not pass through the sludge drying beds with the filtrate, except in small quantities (the oil level in the filtrate is expected to be less than 50 mg/l).
- 3). Assuming 60,000 gpd of lagooned sludge is hauled daily to the City Of Lockport's sludge drying beds approximately 50,000 gpd of filtrate would be returned to the treatment plant daily. However, this filtrate volume would increase the present dry weather average wastewater flowrate by only 2.5%. The 1 to 40 (or greater) dilution offered provides further assurance that the impact of the filtrate stream on the treatment plant operation will be insignificant.

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

- 4). While soluble BOD data is not currently available on the lagooned sludge, the soluble COD level of 770 mg/l indicates that the organic strength is approximately equal to that of raw sanitary wastewater. On this basis, the additional air requirement in the activated sludge basin would be 2.5%. Plant operating personnel indicate that the 2 - 100 HP blowers currently operated are actually throttled back from their normal capacity and could handle this additional organic loading. In addition, the third (of a total of 4) blowers could be started up.
- 5). The NPDES Permit BOD and suspended solids limitations for the City Of Lockport's treated effluent are 20 mg/l and 25 mg/l, respectively. The treatment plant while operating near the design hydraulic capacity apparently produces an effluent with monthly average BOD and suspended solids levels of approximately 10 mg/l and 13 mg/l. This effluent quality is illustrative of a very well operated secondary treatment plant and further indicates the capabilities of the plant and plant operators to effectively handle the filtrate from NPC's sludge.
- 6). The dewatering of NPC's sludge on the City Of Lockport's sludge drying beds should not create an excessive odor problem. The attached laboratory data sheets indicate the sludge has a very small dissolved sulfides level. NPC operating personnel also noted the odor of hydrogen sulfide was definitely absent during the previous cleaning of the sludge lagoon. While this waste activated sludge has not been digested in a separate digestion vessel, NPC's sludge age of approximately 20 days maintained in their aeration basin would approach an extended aeration system with regard to sludge stability. In any event, it is believed that the potential for

RECEIVED

JUL 15 1981

E.P.A. - D.L.P.C.

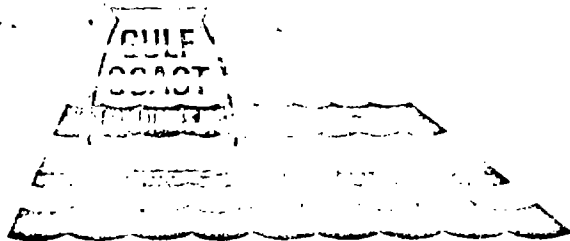
STATE OF ILLINOIS

odors is probably not any more severe than would be associated with sludge bed dewatering of sludge from the City Of Lockport's anaerobic digester.

RECEIVED

JUL 15 1981

E.P.A. -- D.L.P.C.
STATE OF ILLINOIS



RECEIVED

JUN 30 1981

Environmental Dept.

GULF COAST LABORATORIES, INC.
2417 Bond St., Park Forest South, Illinois 60460
Phone (312) 534 52004343 N. Kennedy Ave., East Chicago, Indiana 46312
Phone (219) 325-7077

ANALYTICAL REPORT

TO: Northern Petrochemical Company
Box 459
Morris, Illinois 60450

ATTN: Ms. Sky Jones

DATE: June 26, 1981

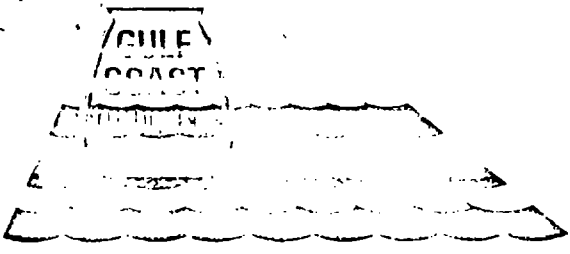
RE: Waste Analysis
Sludge Pond SP-1
Sample Date: 5/01/81
GCL# 18813

PARAMETERS	RESULTS	ILLINOIS LEACHATE
Flash Point (Closed cup)	> 212 °F	
Alkalinity	0.21 %	
pH (20% Solution)	7.7	
Total Solids	13.62 %	
Ash	1.97 %	
Total Cyanides	< 1 mg/kg	
Phenols	< 5 mg/kg	
Dissolved Sulfides	< 5 mg/kg	
Barium	< 10 mg/kg	
Cadmium	< 0.5 mg/kg	
Nickel	8.5 mg/kg	
Lead	8.5 mg/kg	
Selenium	< 0.1 mg/kg	
Silver	< 0.5 mg/kg	
Arsenic	< 0.5 mg/kg	
Chromium	26 mg/kg	
Copper	15 mg/kg	

RECEIVED

JUL 15 1981

E.P.A. S.D.P.C.
STATE OF ILLINOISDate: 5/26/81
06.3.81



RECEIVED

JUN 30 1981

Environmental Dept.

GULF COAST LABORATORIES, INC.
2417 Bond St., Park Forest South, Illinois 60466
Phone (312) 534-5200
4343 N. Kennedy Ave., East Chicago, Indiana 46312
Phone (219) 885-7077

ANALYTICAL REPORT

TO: Northern Petrochemical Company
Box 459
Morris, Illinois 60450

ATTN: Ms. Sky Jones

DATE: June 26, 1981

RE: Waste Analysis
Sludge Pond SP-1
Sample Date: 5/01/81
GCL# 18813

PARAMETERS	RESULTS		ILLINOIS	
			LEACHATE	
Mercury	<	0.05	mg/kg	
Zinc		110	mg/kg	< 1 mg/kg

RECEIVED

JUL 15 1981

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

ANALYST: [Signature] Date: 6/26/81
[Signature]

GULF
COAST

RECEIVED

JUN 30 1981

Environmental Dept.

GULF COAST LABORATORIES, INC.
2417 Bond St., Park Forest South, Illinois 60466
Phone (312) 534-5200

4343 N. Kennedy Ave., East Chicago, Indiana 46312
Phone (219) 835-7077

ANALYTICAL REPORT

TO: Northern Petrochemical Company
Box 459
Morris, Illinois 60450

DATE: June 26, 1981

ATTN: Ms. Sky Jones

RE: Federal Criteria Testing
Sludge Pond SP-1
GCL# 18813
Sample Date: 5/01/81

PARAMETERS

RESULTS

Flash Point (Closed cup)	>	212	°F
pH (20% Solution)		7.7	
Barium	<	10	mg/l
Cadmium	<	0.1	mg/l
Selenium	<	0.1	mg/l
Silver	<	0.5	mg/l
Arsenic	<	0.5	mg/l
Chromium	<	0.5	mg/l
Mercury	<	0.02	mg/l
Lead	<	0.5	mg/l

RECEIVED

JUL 15 1981

E.P.A. - D.L.P.C.
STATE OF ILLINOIS

6/26/81